Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In re Application of	)	
	)	
Santa Monica Community	)	
College District for a	)	
New Noncommercial FM Station	)	MM Docket No. 94-71
in Mojave, California	)	File No. BPED-920305ME
	)	

TO: The Honorable Joseph Stirmer

PETITION FOR LEAVE TO AMEND

Santa Monica Community College District ("SMCCD"), acting pursuant to Section 73.3522(b) of the Commission's rules, hereby petitions for leave to amend its application to (1) specify a new channel and to make other related changes in the engineering parameters of its proposed station and (2) have an SMCCD Trustee ratify SMCCD's original application and all previously filed amendments. In support of this petition, the following is stated:

1. SMCCD filed its application on March 5, 1992 to provide new noncommercial service to Mojave, California; the application (as well as subsequent amendments) were signed by SMCCD's Deputy Superintendent. Living Way Ministries ("LWM") filed an application on May 11, 1992 to provide new noncommercial service to Lancaster, California. SMCCD's application and LWM's application are mutually exclusive and have been designated for hearing.

2. Before the applications were designated for hearing, SMCCD authorized its engineer to explore ways in which the conflict with LWM's application could be removed. Attached as an

amendment, with the appropriate changes in the engineering for SMCCD's application, is the result of that exploration. In essence, the amendment proposes that SMCCD utilize Channel 201B in Mojave instead of 204B at reduced power.[1]

3. The attached amendment satisfies the "good cause" requirement of Section 73.3522(b). See Erwin O'Connor, 22 FCC2d 140, 143 (Review Board 1970). SMCCD could not have foreseen that LWM would have filed a mutually exclusive application; hence, the attached amendment is not required by SMCCD's voluntary act. Acceptance of the amendment will not require the specification of additional issues or parties; to the contrary, acceptance of the amendment will allow both SMCCD's and LWM's applications to be granted without a hearing. Acceptance of the amendment, therefore, will not prejudice any competing applicant or result in SMCCD acquiring any comparative advantage.

4. In the meantime, the HDO designated an issue because SMCCD's application and prior amendments were not signed by a member of SMCCD's governing board. The attached amendment -- which is executed by an SMCCD Trustee -- ratifies all SMCCD's prior filings and should resolve the designated issue.

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[1] The original signature pages for the amendment and the engineering exhibit are contained in the Joint Petition for Approval of Settlement Agreement, which was filed on July 1, 1994.

WHEREFORE, in view of the foregoing and the entire record herein, it is respectfully requested that the attached amendment be accepted.

Respectfully submitted,

KECK, MAHIN & CATE
1201 New York Avenue, N.W.
Washington, D.C. 20005-3919
(202) 789-3400

Attorneys for Santa Monica
Community College District

By: _____
Lewis J. Paper, Esq.

AMENDMENT

The application of Santa Monica Community College District for a new noncommercial FM station in Mojave, California (File No. BPED-920305ME) is hereby amended to (1) substitute the attached engineering portion of the Form 301 application, along with the new Engineering Exhibit, to reflect the proposal to operate on Channel 201B in Mojave, California and (2) reflect the ratification of the original application as well as all amendments, including this amendment, by Alfred Quinn, a member of the Board of Trustees.

SANTA MONICA COMMUNITY COLLEGE DISTRICT

By: _____
Alfred Quinn, Trustee

Date: 6/29/94

Section V-B - FM BROADCAST ENGINEERING DATA	FOR COMMISSION USE ONLY File No. _____ ASB Referral Date _____ Referred by _____

Name of Applicant

Santa Monica Community College District

Call letters *(if issued)*	Is this application being filed in response to a window? ☐ Yes ☒ No If Yes, specify closing date: _____

Purpose of Application: *(check appropriate boxes)*

- ☒ Construct a new (main) facility
- ☐ Construct a new auxiliary facility
- ☐ Modify existing construction permit for main facility
- ☐ Modify existing construction permit for auxiliary facility
- ☐ Modify licensed main facility
- ☐ Modify licensed auxiliary facility

If purpose is to modify, indicate below the nature of change(s) and specify the file number(s) of the authorizations affected.

- ☐ Antenna supporting-structure height
- ☐ Effective radiated power
- ☐ Antenna height above average terran
- ☐ Frequency
- ☐ Antenna location
- ☐ Class
- ☐ Main Studio location
- ☐ Other *(Summarize briefly)*

File Number(s) _____

1. Allocation:

Channel No.	Principal community to be served:		
	City	County	State
201	Mojave	Kern	CA

Class *(check only one box below)*

☐ A ☐ B1 ☒ B ☐ C3
☐ C2 ☐ C1 ☐ C ☐ D

2. Exact location of antenna. (No Change)

(a) Specify address, city, county and state. If no address, specify distance and bearing relative to the nearest town or landmark.

Oak Creek Pass, 19 km west of Mojave. Northwest corner of Section 8, T11N, R14W

(b) Geographical coordinates (to nearest second). If mounted on element of an AM array, specify coordinates of center of array. Otherwise, specify tower location. Specify South Latitude or East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed.

Latitude	35°	04'	02"	Longitude	118°	23'	03"

3. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? ☐ Yes ☒ No

If Yes, give call letter(s) or file number(s) or both. N/A

If proposal involves a change in height of an existing structure, specify existing height above ground level including antenna, all other appurtenances, and lighting, if any.

N/A

4. Does the application propose to correct previous site coordinates? ☐ Yes ☒ No
If Yes, list old coordinates.

Latitude ° ' "	Longitude ° ' "

5. Has the FAA been notified of the proposed construction? ☒ Yes ☐ No
If Yes, give date and office where notice was filed and attach as an Exhibit a copy of FAA determination, if available. Exhibit No.

Date 06/29/94 Office where filed Western-Pacific Regional

6. List all landing areas within 8 km of antenna site. Specify distance and bearing from structure to nearest point of the nearest runway.

	Landing Area	Distance (km)	Bearing (degrees True)
(a)	Tehachapi Municipal	7.6	333.1
(b)	Tehachapi, Mountain Valley	4.3	317.4

7. (a) Elevation: *(to the nearest meter)*

(1) of site above mean sea level; 1,536 meters

(2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and 30 meters

(3) of the top of supporting structure above mean sea level [(aX1) + (aX2)] 1,566 meters

(b) Height of radiation center: *(to the nearest meter)* H = Horizontal; V = Vertical

(1) above ground 26 meters (H)
26 meters (V)

(2) above mean sea level [(aX1) + (bX1)] 1,562 meters (H)
1,562 meters (V)

(3) above average terrain 195 meters (H)
195 meters (V)

8. Attach as an Exhibit sketch(es) of the supporting structure, labelling all elevations required in Question 7 above, except item 7(bX3). If mounted on an AM directional-array element, specify heights and orientations of all array towers, as well as location of FM radiator. Exhibit No. ENGR.

Fig. 1

9. Effective Radiated Power:
(a) ERP in the horizontal plane 22.0 kw (H*) 22.0 kw (V*)

(b) Is beam tilt proposed? ☐ Yes ☒ No

If Yes, specify maximum ERP in the plane of the tilted beam, and attach as an Exhibit a vertical Exhibit No.

10. Is a directional antenna proposed? [X] Yes [ ] No

If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including plot(s) and tabulations of horizontally and vertically polarized radiated components in terms of relative field. Exhibit No. ENGR.

11. Will the main studio be located within the 70 dBu or 3.16 mV/m contour? [X] Yes [ ] No

If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. Exhibit No.

12. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast *(except citizens band or amateur)* radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference? [X] Yes [ ] No

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. *(See 47 C.F.R. Sections 73.315(b), 73.316(d) and 73.318.)* (On File - No Change) Exhibit No. ENGR. SEC. 3

13. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction D for Section V. Further, the map must clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers. (on File - No Change) Exhibit No.

14. Attach as an Exhibit *(name the source)* a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers: Exhibit No. ENGR. Fig. 4

(a) the proposed transmitter location, and the radials along with profile graphs have been prepared;

(b) the 1 mV/m predicted contour and, for noncommercial educational applicants applying on a commercial channel, the 3.16 mV/m contour; and

(c) the legal boundaries of the principal community to be served.

15. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Area 5,514 sq. km. Population 71,950

16. Attach as an Exhibit a map *(Sectional Aeronautical charts where obtainable)* showing the present and proposed 1 mV/m (60 dbu) contours. Exhibit No. N/A

Enter the following from Exhibit above: Gain Area _____ sq. mi.
Loss Area _____ sq. mi.

Percent change (gain area plus loss area as percentage of present area) _____ %.
If 50% or more this constitutes a major change. Indicate in question 2(c), Section I, accordingly.

17. For an application involving an auxiliary facility only, attach as an Exhibit a map *(Sectional Aeronautical Chart or equivalent)* that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. N/A

(a) the proposed auxiliary 1 mV/m contour; and

(b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license. See 47 C.F.R. Section 73.1675. (File No.: _____)

18. Terrain and coverage data *(to be calculated in accordance with 47 C.F.R. Section 73.313).*

Source of terrain data: *(check only one box below)*

☐ Linearly interpolated 30-second database ☐ 7.5 minute topographic map

(Source: _____)

☒ Other *(briefly summarize)* DMA 3-Second Database

Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted Distances to the 1 mV/m contour (kilometers)
0	213.	39.4
45	150.	44.9
90	395.	63.7
135	484.	57.5
180	263.	37.9
225	-99.	14.5
270	-176.	12.2
315	331.	30.8

Allocation Studies

(See Subpart C of 47 C.F.R. Part 73)

19. Is the proposed antenna location within 320 kilometers (199 miles) of the common border between the United States and Mexico? ☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Agreement between the United States of America and the United Mexican States concerning Frequency Modulation Broadcasting in the 88 to 108 MHz band.

Exhibit No.

20. Is the proposed antenna location within 320 kilometers of the common border between the United States and Canada? ☐ Yes ☒ No

If Yes, attach as an Exhibit a showing of compliance with all provisions of the Working Agreement for Allocation of FM Broadcasting Stations on Channels 201-300 under The Canada-United States FM Agreement of 1947. Exhibit No.

21. If the proposed operation is for a channel in the range from channel 201 through 220 (88.1 through 91.9 MHz), or if this proposed operation is for a class D station in the range from Channel 221 through 300 (92.1 through 107.9 MHz), attach as an Exhibit a complete allocation study to establish the lack of prohibited overlap of contours with other U.S. stations. The allocation study should include the following: Exhibit No. ENGR. SEC. 6 Fig. 5

(a) The normally protected interference-free and the interfering contours for the proposed operation along all azimuths.
(b) Complete normally protected interference-free contours of all other proposals and existing stations to which objectionable interference would be caused.
(c) Interfering contours over pertinent arcs of all other proposals and existing stations from which objectionable interference would be received.
(d) Normally protected and interfering contours over pertinent arcs, of all other proposals and existing stations, which require study to show the absence of objectionable interference.
(e) Plot of the transmitter location of each station or proposal requiring investigation, with identifying call letters, file numbers and operating or proposed facilities.
(f) When necessary to show more detail, an additional allocation study will be attached utilizing a map with a larger scale to clearly show interference or absence thereof.
(g) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(h) The name of the map(s) used in the Exhibit(s).

22. With regard to any stations separated by 53 or 54 channels (10.6 or 10.8 MHz) attach as an Exhibit information required in 1/ *(separation requirements involving intermediate frequency (i.f.) interference).* Exhibit No. ENGR. SEC 8

23.(a) Is the proposed operation on Channel 218, 219, or 220? ☐ Yes ☒ No

(b) If the answer to (a) is yes, does the proposed operation satisfy the requirements of 47 C.F.R. Section 73.207? ☐ Yes ☐ No

(c) If the answer to (b) is yes, attach as an Exhibit information required in 1/ regarding separation requirements with respect to stations on Channels 221, 222 and 223. Exhibit No.

(d) If the answer to (b) is no, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. Exhibit No.

1/ A showing that the proposed operation meets the minimum distance separation requirements. Include existing stations, proposed stations, and cities which appear in the Table of Allotments; the location and geographic coordinates of each antenna, proposed antenna or reference point as appropriate; and distance to each from proposed antenna location.

(e) If authorization pursuant to 47 C.F.R. Section 73.215 is requested, attach as an Exhibit a complete engineering study to establish the lack of prohibited overlap of contours involving affected stations. The engineering study must include the following:

Exhibit No. ENGR. SEC. 6 Fig. 5

(1) Protected and interfering contours, in all directions (360°), for the proposed operation.
(2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as transmitter location.
(3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
(4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
(5) The official title(s) of the map(s) used in the exhibits(s).

24. Is the proposed station for a channel in the range from Channel 201 to 220 (88.1 through 91.9 MHz) and the proposed antenna location within the distance to an affected TV Channel 6 station(s) as defined in 47 C.F.R. Section 73.525?

[X] Yes [ ] No

If Yes, attach as an Exhibit either a TV Channel 6 agreement letter dated and signed by both parties or a map and an engineering statement with calculations demonstrating compliance with 47 C.F.R. Section 73.525 for each affected TV Channel 6 station.

Exhibit No. ENGR. SEC. 9

25. Is the proposed station for a channel in the range from Channel 221 to 300 (92.1-107.9 MHz)?

[ ] Yes [X] No

If Yes, attach as an Exhibit information required in 1/. *(Except for Class B (secondary) proposals.)*

Exhibit No.

26. Environmental Statement *(See 47 C.F.R. Section 1.1301 et seq.)*

Would a Commission grant of this application come within Section 1.1307 of the FCC Rules, such that it may have a significant environmental impact?

[ ] Yes [X] No

If you answer Yes, submit as an Exhibit an Environmental Assessment required by Section 1.1311.

Exhibit No.

If No, explain briefly why not. See Engineering Exhibit, Section 10.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined the foregoing and found it to be accurate and true to the best of my knowledge and belief.

Name *(Typed or Printed)*	Relationship to Applicant *(e.g., Consulting Engineer)*
John J. Davis	Consulting Engineer
Signature	Address *(Include ZIP Code)* P.O. Box 128 Sierra Madre, CA 91025-0128
Date June 29, 1994	Telephone No. *(Include Area Code)* (818) 355-6909

ENGINEERING EXHIBIT

MODIFICATION OF THE
APPLICATION FOR CONSTRUCTION PERMIT
FOR NEW NCE-FM STATION
MOJAVE, CALIFORNIA

FCC FILE NO. BPED-920305ME

PREPARED FOR:

SANTA MONICA COMMUNITY COLLEGE DISTRICT
1900 PICO BOULEVARD
SANTA MONICA, CALIFORNIA 90405-1628

JUNE 29, 1994

PREPARED BY:

JOHN J. DAVIS
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1.0 INTRODUCTION

This Engineering Exhibit was prepared for SANTA MONICA COMMUNITY COLLEGE DISTRICT ("Santa Monica"), applicant for a new non-commercial educational FM (NCE-FM) station to serve Mojave, California, to support its application for a modification of its application for construction permit, (FCC File No. BPED-920305ME) to change the channel from Channel 204B to Channel 201B in order to remove the conflict with the competing application of Living Stream Christian Fellowship on Channel 205 in Lancaster, California (FCC File No. BPED-920511MC).

Because of the channel change it will also be necessary to change the directional antenna characteristics and reduce the effective radiation power ("ERP") from 29 kW to 22 kW in order to meet the Commission's interference criteria for NCE-FM stations. There is no change in transmitter site or antenna heights. The modified antenna directional characteristics comply with Section 73.316 of the Rules.

2.0 CHANNEL SELECTION

The only other channel to which Santa Monica could move in order to remove the conflict on Channel 204 is Channel 201. There are three stations which have the potential for interference overlap problems, KLON, Channel 201B1, in Long Beach and construction permits for new NCE-FM stations, KAXL, Channel 202B1, in Greenacres and KCLU, Channel 202B1 in Thousand Oaks.

Table I is a list of all co-channel and adjacent channel allotments and assignments within a close enough distance to have a possible effect upon Channel 201B being assigned to Mojave. The data contained in Table I is based upon omni-directional radiation with the antenna height above the average terrain ("HAAT") of 195 meters assumed to be uniform in all directions[1]. Table I showed that only Long Beach and Greenacres would be short-spaced and KCLU close to being short-spaced under these uniform conditions. All three of these potential conflicts are studied in detail in this Exhibit.

It is the protection to co-channel KLON in Long Beach and first-adjacent channel KAXL in Greenacres that requires a modification of the antenna pattern and a reduction in ERP.

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[1] This initial interference contour computer study is based upon co-channel and adjacent channel station's ERP and HAAT and does not take into consideration variations in coverage due to terrain irregularities or directional antenna characteristics.

3.0 PROPOSED TRANSMITTER SITE

There is no change in the transmitter site, which is a developed electronics site at Oak Creek Pass, as a result of the proposed modification of Santa Monica's application for construction permit.

There are no FM or television transmitters or any nonbroadcast radio stations within 60 meters of the site other than those located at the Carrier Communications facility. There are no commercial or government receiving stations, cable head-end facilities or populated areas within the blanketing area. The transmitter facilities of KTPI, a Class A FM station operating on channel 276 are located 1.64 km northeast of the site. Other than KTPI, there are no other FM transmitters or television transmitters within 10 kilometers of the site. There are, however, numerous two-way radio communications systems located at the Carrier Communications facility.

The person who controls the site has agreed to the use of this location by the applicant as an FM transmitter site. The person controlling the site is:

Carrier Communications
Attn: Mr. Christopher C. Killian
45313 Beech Street, Suite B
Lancaster, CA 93534
(805) 945-5448

4.0 PROPOSED MODIFIED OPERATING CONDITIONS

4.1 Modified Antenna:

The modified antenna will be an Electronic Research, Inc. ("ERI") 2-bay circularly polarized directional FM transmitting antenna, Model DA1005-2B-HW. The modified antenna has a maximum horizontal power gain of 2.85 (4.55 dB). The maximum vertical power gain equals that of the horizontal gain. The antenna has a maximum-to-minimum ratio of 15 dB and the gain changes at a rate of 2 dB or less for every 10° in azimuth change. The antenna will be mounted so that its maximum lobe of radiation will be at 40° true, which is a change from the original antenna orientation. The change in main lobe direction and maximum-to-minimum ratio is necessary in order to protect both KLON and KAXL from interference. There is no change in the antenna elevation above ground, AMSL or HAAT. The antenna elevation is shown in Figure 1.

Table IV lists the directional horizontal gain characteristic of the modified antenna at 5° intervals. Figure 2 is an azimuth polar plot of the modified antenna and Figure 3 is a plot of the antenna's vertical gain.

Appendix A of this Exhibit contains the antenna manufacturer's plan for design, construction and test of the proposed antenna to insure compliance with Section 73.316 of the Rules.

4.2 Proposed Transmitter:

There is no change in the transmitter, except for a change in the transmitter power output ("TPO"), as a result of a decrease in the antenna gain and decreasing the ERP from 29 kW to 22 kW. The modified operating conditions are tabulated in Table II.

5.0 PROPOSED COVERAGE

Because of the reduction in ERP and the change in antenna directional characteristics there will be a change in the coverage contours of the proposed station. These changes are discussed below.

5.1 Prediction of Coverage:

The distances to the 70 and 60 dBu F(50,50) field strength contours and the 40, 48[2], 54 and 80 dBu F(50,10) interference field strength contours were determined using a computer algorithm for propagation prediction in the FM broadcast services based upon the algorithm used by the Commission. The distances to the contours have been determined at 10 degree intervals. The distances to the 70 & 60 dBu contours are tabulated in Table V and the distances for the 40, 48, 54 and 80 dBu F(50,10) interference contours are tabulated in Table VI. The 60 dBu F(50,50) primary field

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[2] The 48 dBu interference contour relates to protection of KSBY-TV, Channel 6, in San Luis Obispo, California,

strength contour is plotted in Figure 4, which is a portion of a USGS topographic map, California South, scale 1:500,000.

5.2 Land Area & Population:

The land area enclosed within the modified 60 dBu field strength contour was determined from Figure 4 by graphical means using a compensating polar planimeter. The population within the 60 dBu field strength contour was taken from the 1990 Census of the United States.

LAND AREA:	5,514 Square Kilometers	
POPULATION:	1980 Census:	71,950
	1986 Updated Census:	83,498

6.0 INTERFERENCE CONSIDERATIONS

There is one co-channel station, KLON in Long Beach (201B1) and two first-adjacent channel construction permits, KAXL in Greenacres (202B1) and KCLU in Thousand Oaks (202B1) that have the potential to affect this modified application. Other than these existing stations (or construction permits), there are no other stations or pending applications within a close enough distance to have an effect on this application.

Determination of the interference contours for each of these three stations was based on antenna elevation data taken from that station's file already on file with the Commission. The distances to the existing station's 60 dBu F(50,50) field strength contour and the F(50,10) interfer-

ence contour (40 dBu for the co-channel station, 54 dBu for first-adjacent channel stations) are tabulated in Tables VII through IX. Because the "safety-zone"[3] for KLON and KAXL is under 10 kM, these two stations' contours are plotted in Figure 5 to insure that no prohibited overlap exists. The safety-zone for KCLU is at least 67 km and, hence, its contours has not been plotted.

The 60 dBu F(50,50) field strength contour and the relevant portions of the 40 and 54 dBu F(50,10) interference contours of the modified proposed Mojave station, along with the primary 60 dBu contours of KLON and KAXL and the 40 dBu F(50,10) interference contour of KLON and the 54 F(50,10) interference contour of KAXL, are plotted in Figure 5, which is also a portion of a USGS topographic map, California South, scale 1:500,000. It can be seen from Figure 5 that there is no prohibitive overlap of any primary and interference contour.

7.0 FM BLANKETING CONSIDERATIONS

The distance to the 115 dBu FM blanketing contour was determined to be 1.85 km (1.15 miles). Within this blanketing contour area there is no population.

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[3] "Safety-zone" being defined as the closest distance that the relevant primary and interference contours come to each other.

8.0 INTERMEDIATE FREQUENCY INTERFERENCE CONSIDERATIONS

There are no stations operating on channel 254 (+53 channels removed from 201B) or on channel 255 (+54 channels removed from 201B) that would have an effect upon this application. Table I shows the closest IF channel station is KYSR in Los Angeles which is separated from the proposed Mojave station by 105.2 km while the required separation is only 20 km. Therefore, the proposed station exceeds the minimum separation requirement to KYSR by 85.2 km.

9.0 TV CHANNEL 6 CONSIDERATIONS

Section 73.525(a) of the Rules specifies that an NCE-FM station operating on channel 201 must be at least 265 kilometers from a channel 6 television station or special considerations must be taken into account. The closest channel 6 TV station to the proposed modified Mojave station is KSBY-TV in San Luis Obispo and the distance between the two is only 209.3 kilometers. Since KSBY-TV is less than 265 km from the proposed site, further study is necessary to show that no interference will be caused to KSBY-TV by the modified station in Mojave.

KSBY-TV operates with an ERP of 100 kW at a HAAT of 543 meters. The distance to the Grade B (47 dBu) F(50,50) field strength contour is tabulated in Table X. From Figure 1, of Section 73.599, the U/D ratio was determined to be 1.0 dB. Therefore, the interference contour for

ence contour (40 dBu for the co-channel station, 54 dBu for first-adjacent channel stations) are tabulated in Tables VII through IX. Because the "safety-zone"[3] for KLON and KAXL is under 10 kM, these two stations' contours are plotted in Figure 5 to insure that no prohibited overlap exists. The safety-zone for KCLU is at least 68 km and, hence, its contours has not been plotted.

The 60 dBu F(50,50) field strength contour and the relevant portions of the 40 and 54 dBu F(50,10) interference contours of the modified proposed Mojave station, along with the primary 60 dBu contours of KLON and KAXL and the 40 dBu F(50,10) interference contour of KLON and the 54 F(50,10) interference contour of KAXL, are plotted in Figure 5, which is also a portion of a USGS topographic map, California South, scale 1:500,000. It can be seen from Figure 5 that there is no prohibitive overlap of any primary and interference contour.

7.0 FM BLANKETING CONSIDERATIONS

The distance to the 115 dBu FM blanketing contour was determined to be 1.85 km (1.15 miles). Within this blanketing contour area there is no population.

---

[3] "Safety-zone" being defined as the closest distance that the relevant primary and interference contours come to each other.

the modified NCE-FM channel 201B with respect to KSBY-TV is the 48 dBu contour. The distance to the modified Mojave station's 48 dBu F(50,10) interference contour, at 279.6° toward KSBY-TV was determined to be 23.3 km. There is no intersection of the existing KSBY-TV Grade B contour and the proposed new 201B interference contour.

KSBY-TV Grade B Contour:	115.0 km
201B 48 dBu Interference Contour:	23.3 km
	138.3 km
Separation Distance:	209.3 km
Safety-Zone:	71.0 km

Based upon the above analysis, the proposed modified Mojave station operating on channel 201B will not cause any interference to existing KSBY-TV in San Luis Obispo.

10.0 ENVIRONMENTAL CONSIDERATIONS

Since the only change proposed by this application is a change in frequency and a reduction of 25% in the ERP, this application will have no adverse environmental impact.

10.1 Human Exposure to RF Radiation:

This modified application reduces the RF radiation exposure to humans. The modified operating conditions of the Mojave station are:

ERP:	Horizontal:	22 kW
	Vertical:	22 kW
	Total:	44 kW or 44,000,000 mW

The proposed antenna is a 2 bay, half-wavelength spaced antenna where the downward radiation is greatly reduced over a simple half-wave dipole antenna. Based on the antenna's vertical radiation pattern, the relative field gain in a downward direction to a point 20 meters away from the tower base is 0.25. Therefore, the ERP in this downward direction is only 2.75 kW or 2,750,000 mW.

Antenna: AGL = 26 Meters or 2,600 cm

The maximum power density of total radiation in the FM band at a point 20 meters away from the base of the tower is set at 1.0 milliwatts/cm^2. The equation used to determine the maximum worst-case radiation level is equation (4) in OST Bulletin No. 65:

$$S = \frac{(0.64)ERPI}{(Pi)R^2}$$

Where: ERPI = Total ERP, in mW, x 1.64
Pi = 3.1415927
R = Distance from antenna to a point 20 meters from the base of the tower, in cm.

For the modified proposal:

$$S = \frac{(0.64)(1.64)(2,750,000)}{(3.1415927)(3,280)^2} = 0.085 \text{ mW/cm}^2$$

The total power density of 0.085 mW/cm^2 is well below the maximum of 1.0 mW/cm^2.

The radiation level was also determined using Table 1 from OST Bulletin No. 65. Using the best case condition for a 2-bay antenna, based upon the use of half-wavelength spacing, shows the minimum antenna height to be 17.9 meters. The proposed antenna is at 26 meters, which is 1.45 times the required height as determined by the use of Table 1.

Therefore, the proposed modified channel 201B station exceeds the requirements of OST Bulletin No. 65 and is in full compliance with the Rules.

10.2 Section 1.1305 Consideration:

There is no change proposed in the antenna mounting structure as a result of this application.